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Before the
Federal Communications Commission
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

Advanced Television Systems
and Their Impact upon the
Existing Television Broadcast
Service

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) MM Docket No. 87-268
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To: The Commission

SUPPLEMENT TO PETITION FOR RECONSIDERATION

Maranatha Broadcasting Company, Inc. ("MBC"), licensee of television broadcast station WFMZ-TV, Channel 69, Allentown, Pennsylvania, through counsel and pursuant to the staff's invitation (*Order*, DA 97-1377, released July 2, 1997), hereby submits this supplement to MBC's Petition for Reconsideration of the *Sixth Report and Order* ("*Sixth Report*") in this proceeding, FCC 97-115, released April 21, 1997.

In its Petition for Reconsideration, MBC sought correction of the severe short-spacing between WFMZ-TV's Channel 46 DTV allotment and the co-channel DTV allotment for WWAC-TV, Channel 53, Atlantic City, New Jersey. (As noted in Attachment A hereto, Engineering Statement of Larry H. Will, P.E., the 50.5 km short-spacing is 25.7 percent below the minimum spacing prescribed elsewhere for co-channel UHF DTV allotments.) The short-spacing is particularly egregious and discriminatory because it is, potentially, permanent: both stations' NTSC allotments are outside the so-called "core" spectrum identified for permanent DTV operations and, thus, neither station will have the option to continue DTV operations on its current NTSC channel at the conclusion of the transition period.

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The premise underlying the staff's *Order* permitting supplements to petitions for reconsideration was that the release, subsequent to the deadline for seeking reconsideration of the *Sixth Report*, of *OET Bulletin No. 69*, which describes the FCC's criteria for evaluating TV coverage and interference in deriving the Table of DTV Allotments, would permit licensees to better evaluate their DTV allotments and assist the FCC in correcting problems identified in the *Sixth Report*.

As it develops, however, even with the release of *OET Bulletin No. 69*, the private sector has been unable to replicate the results achieved by the FCC for evaluation of not only predicted interference but also possible alternative channel assignments. Attachment A, p. 6. This means (1) there is no adequate technical means for MBC to evaluate channel options for either WFMZ-TV or WWAC-TV and (2) only the FCC can provide a viable alternative assignment for either station that will be acceptable to the FCC.

More detailed study of the Table of DTV Allotments only confirms the severity of the WFMZ-TV/WWAC-TV short-spacing and accentuates the discriminatory nature of the FCC's imposition of these allotments on the two stations. In the northeastern United States -- the area acknowledged by the FCC as the most difficult to make DTV allotments -- the WFMZ-TV/WWAC-TV channel pair is the single most egregious DTV-DTV co-channel short-spacing. Attachment A, p. 4. The next most severe DTV-DTV co-channel short spacing is approximately 29 km; the *only other* DTV-DTV co-channel short-spacing is less than nine kilometers. In both of the other short-spacing cases, at least one of the affected stations is currently operating within the "core" spectrum, meaning that the stations will be able to easily and inexpensively resolve the short-spacing at the end of the transition period.

In other words, WFMZ-TV's DTV assignment is probably the most-severely short-spaced in the entire United States, and almost certainly is unique in its potential to become a permanent limitation on WFMZ-TV's ability to provide DTV service within the center of its economic market.¹

In its *Fifth Report and Order* in this proceeding, FCC 97-116, released April 21, 1997, ¶ 76, the FCC adopted a construction schedule that requires affiliates of the four major networks in the ten largest markets (which includes Philadelphia) to begin DTV broadcasts by May 1, 1999. For independent stations such as WFMZ-TV, which must compete with the major networks in one of the country's largest markets, this construction deadline represents both an opportunity and a challenge. The major networks will lead the way with DTV broadcasting, which will encourage the public to purchase DTV reception equipment. At the same time, stations such as WFMZ-TV, to avoid being left awash in the wake of their competitors, will have to move to DTV with equal expedition, notwithstanding that they will not be subject to the same official deadline.

In order to meet the challenge presented by the *Fifth Report and Order*, MBC last month entered into an agreement to sell WFMZ(FM), Allentown, which MBC has owned and operated since 1970 (see File No. BALH-970721GF). The purpose of the sale is to provide MBC with the substantial capital required to vault WFMZ-TV into the DTV era. Assuming the completion of the sale of WFMZ(FM) and finalization of a viable DTV channel allotment, WFMZ-TV will commence DTV broadcasts within approximately the same time frame as its major network-affiliated competitors.

¹ As noted in MBC's Petition for Reconsideration, p. 2, and again in Attachment A, the interference between the two stations will occur in the geographic center of the Philadelphia market, in which both stations operate.

The FCC should not, on the one hand, place the expensive and risky burdens of converting to DTV on independent broadcasters and, on the other hand, saddle them with third-rate and potentially permanently-substandard DTV channel allotments. Rather, it should make such adjustments in its Table of DTV Allotments and, if required, its overall spectrum utilization scheme (for example, greater utilization of channels outside the core spectrum during the transition period), as are necessary to assure WFMZ-TV (and all stations) a fully-spaced DTV channel allotment with potential for maximization of DTV facilities at the end of the transition period if not earlier.

For the foregoing reasons, MBC's Petition for Reconsideration should be granted.

Respectfully submitted,

MARANATHA BROADCASTING
COMPANY, INC.

By 

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Its Attorney

August 22, 1997

MARANATHA BROADCASTING COMPANY, INCORPORATED

LICENSEE OF

WFMZ-TV

CHANNEL 69

ALLENTOWN, PENNSYLVANIA

ENGINEERING EXHIBIT

IN SUPPORT OF

A PETITION FOR RECONSIDERATION IN

FCC DOCKET 87-268

**Larry H. Will, P.E.
1055 Powderhorn Drive
Glen Mills, PA 19342-9504**

MARANATHA BROADCASTING COMPANY, INCORPORATED

LICENSEE OF

WFMZ-TV

CHANNEL 69

ALLENTOWN, PENNSYLVANIA

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MARANATHA BROADCASTING COMPANY, INCORPORATED

DECLARATION OF LARRY H. WILL

Larry H. Will declares and says:

That he prepared the attached engineering exhibit on behalf of MARANATHA BROADCASTING COMPANY, INCORPORATED, Licensee of WFMZ-TV, a Commercial TV station at Allentown, Pennsylvania.

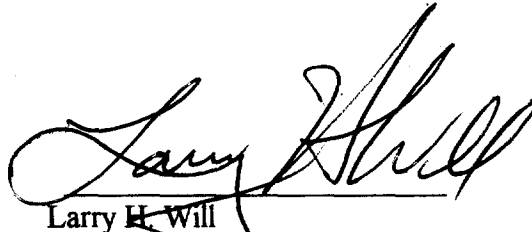
That he has been involved in radio and television broadcast engineering for over 30 years, and that he has previously submitted engineering applications to the Federal Communications Commission.

That he holds a Bachelor of Science Degree in Electrical Engineering from Drexel University, 1966.

That he is a Registered Professional Engineer in the State of New Jersey.

That he is a member in good standing of the Institute of Electrical and Electronic Engineers, the Association of Federal Communications Consulting Engineers, and the Society of Broadcast Engineers.

That all statements contained within this exhibit are true and accurate to the best of his knowledge and belief, and as to such statements made of belief, they are believed to be true, except for information for which the Federal Communications Commission takes official notice.



Larry H. Will
1055 Powderhorn Drive
Glen Mills, PA 19342-9504
(610) 399-1826

Date: August 18, 1997

MARANATHA BROADCASTING COMPANY, INCORPORATED

LICENSEE OF

WFMZ-TV

CHANNEL 69

ALLENTOWN, PENNSYLVANIA

ENGINEERING EXHIBIT

1. BACKGROUND

Maranatha Broadcasting is currently licensed as WFMZ-TV on Channel 69 in Allentown, PA and has a pending application (BMPCT-960515KE) for an increase in Effective Radiated Power. The undersigned has been retained to prepare this Engineering Exhibit in support of WFMZ-TV's Petition for Reconsideration in FCC MM Docket 87-268 with respect to the FCC proposed allotment of DTV Channel 46 to WFMZ-TV.

In the 2nd Further Notice and Proposed Rulemaking in MM Docket 87-268, WFMZ-TV was originally allotted DTV UHF Channel 62 at 16.1 kilowatts RMS. In the 6th Further Notice of Proposed Rulemaking, the proposed DTV allotment for WFMZ-TV was changed to UHF Channel 67 with a digital RMS Effective Radiated Power of 50 kilowatts. WFMZ-TV previously filed comments concerning the original non-core allotment and the relatively low power allowed for WFMZ-TV (DTV), as compared to other stations within the ADI, by the Commission in the 2nd Notice.

2. DISCUSSION

In the 6th Report and Order, the Commission revised the WFMZ-TV DTV allotment to Channel 46 with a DTV RMS Effective Radiated Power of 50 kilowatts. In addition, the Commission also allotted DTV Channel 46 to WWAC-TV, NTSC Channel 53, in Atlantic City. Several aspects of this allotment concern Maranatha Broadcasting Company.

- 1) Both WFMZ-TV and WWAC-TV have existing NTSC channels OUTSIDE the "core spectrum" which prevents using the existing channels for DTV after the transition.
- 2) Both stations are part of the Philadelphia, PA television ADI.
- 3) As discussed below, the severe "short spacing" (DTV-DTV) between these two stations will cause unacceptable co-channel interference which can only be corrected by a yet unknown new channel allotment for either WWAC-TV or WFMZ-TV and at considerable expense. Until channels are freed up at or near the end of the transition period, there is expected to be no opportunity for WFMZ-TV to eliminate the interference. This period could last upwards of 8 years or longer if the end of NTSC transmission is extended.

At the request of Maranatha Broadcasting Company, the undersigned has conducted a detailed review of the 6th R&O DTV allotments and existing NTSC allotments from northern Virginia to central Maine¹

- 1) The WFMZ-TV-WWAC-TV UHF DTV-DTV short spacing is the most severe in the entire northeastern United States region. In Appendix E of the 6th R&O, the Commission specifies a minimum UHF DTV-DTV co-channel spacing of 196.2 km. The

¹ This area was acknowledged by the Commission as the most difficult area with respect to DTV allotments.

WFMZ-TV-WWAC-TV DTV-DTV spacing is 145.73 km or 50.5 km (25.7%) below the minimum.

2) The next most severe UHF DTV-DTV short spacing in the region is on Channel 22 between WLIW-TV, Garden City, NY and WNJS(TV), Camden, NJ at 166.99 km (14.9%). However, both of these stations NTSC and DTV allotments are within the "core spectrum" allowing lower cost options after the transition period.

3) The third and only other identified UHF DTV-DTV short spaced condition is on Channel 36 between WMGM-TV, Wildwood, NJ and WNJU, Linden, NJ at 187.59 km (4.4%). Again these stations have at least one channel within the "core spectrum" facilitating the end of the transition.

No other UHF DTV-DTV co-channel short spaced condition was found although there are many DTV-NTSC short spaced examples. Since DTV-NTSC short spacing conditions can reasonably be expected to be resolved at the end of the transition, we have not looked at these further. We note that most UHF DTV-DTV allotments exceed the minimum short spacing by a considerable margin.

Maranatha Broadcasting believes that it has been unfairly singled out with respect to the DTV transition and the allotment of two DTV stations on the same channel in the same ADI places WFMZ-TV at a competitive disadvantage with all other stations within the ADI.

Specifically in the geographic center of the ADI, both WFMZ-TV and WWAC-TV will experience destructive electrical interference from each other making reception of either signal impossible.

The destructive interference results from an insufficient C/I ratio caused by the relatively strong co-channel interference from the closely spaced station.

3: COVERAGE CONSIDERATIONS

On July 2, 1997, the FCC released OET Bulletin 69, "*Longley-Rice Methodology for Evaluation of TV Coverage and Interference*". This bulletin discusses the FCC methodology in predicting DTV coverage and interference.

However, it has come to our attention that there are still many industry concerns about the specific application of the Longley-Rice methodology and the current ability in the field to replicate the results achieved by the Commission with respect to evaluating not only the extent of the predicted interference, but also to evaluate possible additional channels² been identified as a possible replacement for Channel 46 in Atlantic City. However Channel 8 is allotted to West Milford, NJ, 157.6 km from Atlantic City and it too would be severely short spaced³ of significant short spacing to existing NTSC WGAL-TV, Channel 8 in Lancaster, PA.

At this time, we believe there is no adequate technical means available to Maranatha Broadcasting (short of using NTSC criteria) to evaluate channel options for either Atlantic City, NJ or Allentown, PA⁴

Only the resources available to the Commission staff can provide a viable alternative with criteria acceptable to the Commission.

² We understand that NIST evaluations do not yield the same results as FCC evaluations and no proven commercial software solution exists at the time of this writing.

³ 157.6 km vrs. 244.6 km for VHF DTV-DTV.

⁴ The use of existing Channel 69 for digital broadcasting is not an option due to the very likelihood of interference caused to existing land mobile operations adjacent to Channel 69.

4: CONCLUSIONS

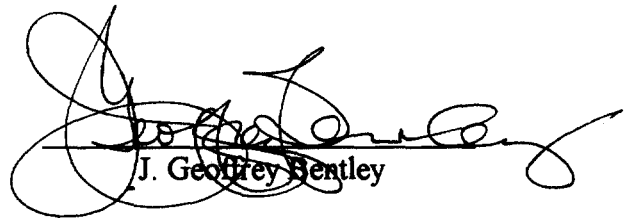
Maranatha Broadcasting Company believes that the revised allotments for Allentown, PA and Atlantic City, NJ with regard to the DTV Channel 46, will, if allowed to stand, severely limit the ability of WFMZ-TV to implement DTV in a cost efficient and effective manner and we respectfully request that the Commission review the allotments within the region with a goal of eliminating a co-channel allotment severely short spaced and within the same (Philadelphia) ADI.

We further believe that DTV WFMZ-TV should *not* have to exist with severe co-channel interference for 8 years or longer.

CERTIFICATE OF SERVICE

I hereby certify that, this 22d day of August 1997, I caused a copy of the foregoing Supplement to Petition for Reconsideration to be served by First Class United States mail, postage prepaid, on:

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J. Geoffrey Bentley